



# **Validating IPMRs, CPRs, and IMS Deliverables**

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**NAVY CEVM**





# INTRODUCTION

- Earned Value Management integrates contract scope, schedule and budget with the goal of producing performance data that can be used to inform management decision making
- The importance of maintaining high quality EVM performance data can not be overstated. It's critical that each Navy program office validate the quality of the EVM reporting it receives
- The purpose of this training is to recommend some simple checks for validating a basic level of EVM CDRL quality





# Validating CPR & IPMR Formats

- IPMR and CPR Formats
  - Format 1 – Work Breakdown Structure (WBS)
  - Format 2 – Functional Categories
  - Format 3 – Baseline
  - Format 4 – Manpower loading
  - Format 5 – Problem Analysis
  - Format 6 (IPMR only) – Integrated Master Schedule (IMS)
  - Format 7 (IPMR only) – Time Phased Cost
- This training segment is intended to be used in addition to guidance in the CEVM Analysis Toolkit (Appendix B)





# Validating Format 1 (CPR or IPMR)

## Header Information

CLASSIFICATION (When Filled In)									
INTEGRATED PROGRAM MANAGEMENT REPORT FORMAT 1 - WORK BREAKDOWN STRUCTURE								DOLLARS IN	
The public reporting burden for this collection of information is estimated to average 3.1 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. <b>PLEASE DO NOT RETURN YOUR FORM TO THIS ADDRESS. SUBMIT COMPLETED FORMS IN ACCORDANCE WITH CONTRACTUAL REQUIREMENTS.</b>								PENDING	
								UPDATE TO OMB No. 0704-0188	
1. CONTRACTOR		2. CONTRACT			3. PROGRAM			4. REPORT PERIOD	
a. NAME		a. NAME			a. NAME			a. FROM (YYYYMMDD)	
b. LOCATION (Address and ZIP Code)		b. NUMBER			b. PHASE			b. TO (YYYYMMDD)	
		c. TYPE			d. SHARE RATIO			c. EVMS ACCEPTANCE NO YES (YYYYMMDD)	
5. CONTRACT DATA									
a. QUANTITY	b. NEGOTIATED COST	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK	d. TARGET PROFIT/ FEE	e. TARGET PRICE	f. ESTIMATED PRICE	g. CONTRACT CEILING	h. ESTIMATED CONTRACT CEILING	i. DATE OF OTB/OTS (YYYYMMDD)	
6. ESTIMATED COST AT COMPLETION						7. AUTHORIZED CONTRACTOR REPRESENTATIVE			
MANAGEMENT ESTIMATE AT COMPLETION (1)		CONTRACT BUDGET BASE (2)		VARIANCE (3)		a. NAME (Last, First, Middle Initial)		b. TITLE	
a. BEST CASE						c. SIGNATURE		d. DATE SIGNED (YYYYMMDD)	
b. WORST CASE									
c. MOST LIKELY									

- Blocks 1-3 – generally represent stable contract data unique to the particular contractor and effort
- Block 4 – report dates should be reviewed and the “TO” date validated against the IMS status date.
- Block 5 – contract financial data should be validated against the latest contract modification signed by all parties as of the report date (block 4b)
  - Block 5c – Authorized Unpriced Work can never be negative (NEW for IPMR)
  - Block 5i – Shall be blank if no OTB or OTS has been implemented as of the report date. Per DFAR 252.232-7002, implementation requires government approval.
- Block 6 – Contractor EACs should be sensible (best case should be the lowest estimate, worst case should be the highest)
  - Block 6c(2) Contract Budget Base should be equal to Block 5b + Block 5c
  - Block 6c(3) Variance should be equal to Block 6c(1) – Block 6c(2)





# Validating Format 1 (CPR or IPMR)

## Performance Information

ITEM (1)	CURRENT PERIOD					CUMULATIVE TO DATE					REPROGRAMMING ADJUSTMENTS			AT COMPLETION		
	BUDGETED COST		ACTUAL COST	VARIANCE		BUDGETED COST		ACTUAL COST	VARIANCE					BUDGETED	ESTIMATED	VARIANCE
	WORK SCHEDULED	WORK PERFORMED	WORK PERFORMED	SCHEDULE	COST	WORK SCHEDULED	WORK PERFORMED	WORK PERFORMED	SCHEDULE	COST	COST VARIANCE	SCHEDULE VARIANCE	BUDGET			
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12a)	(12b)	(13)	(14)	(15)	(16)
a. WORK BREAKDOWN STRUCTURE ELEMENT																
• Block 8																
• Column 8 (BCWP) must always be less than or equal to column 14 (Budgeted)																
• Column 9 (ACWP) should be less than Column 15 (Estimated) unless a cost transfer is pending that justifies the anomaly																
• Column 12a, 12b, and 13 (Reprogramming Adjustments) are only used if an OTB has been implemented																
• Row 8d (UB) and 8f (MR) are prohibited from being negative numbers (new for IPMR)																
• Row 8E should equal the sum of 8a, 8b, 8c, and 8d, UNLESS 8b (cost of money) and 8c (G&A) are treated as non-add and therefore also already included in the 8a totals																
• Block 9																
• Row a and Row b relate to contract variance adjustments and are only used if an OTB has been implemented																
• No data is allowed in the shaded areas of the format.																
b. COST OF MONEY																
c. GENERAL AND ADMINISTRATIVE																
d. UNDISTRIBUTED BUDGET																
e. SUB TOTAL (PERFORMANCE MEASUREMENT BASELINE)																
f. MANAGEMENT RESERVE																
g. TOTAL																
9. RECONCILIATION TO CONTRACT BUDGET BASE																
a. VARIANCE ADJUSTMENT																
b. TOTAL CONTRACT VARIANCE																





- [illegible]





# Validating Format 3 (CPR or IPMR)

5. CONTRACT DATA																			
a. ORIGINAL NEGOTIATED COST		b. NEGOTIATED CONTRACT CHANGES		c. CURRENT NEGOTIATED COST (a. + b.)		d. ESTIMATED COST OF AUTHORIZED UNPRICED WORK		e. CONTRACT BUDGET BASE (c. + d.)		f. TOTAL ALLOCATED BUDGET		g. DIFFERENCE (e. - f.)							
h. CONTRACT START DATE (YYYYMMDD)				i. CONTRACT DEFINITIZATION DATE (YYYYMMDD)				j. PLANNED COMPLETION DATE (YYYYMMDD)				k. CONTRACT COMPLETION DATE (YYYYMMDD)				l. ESTIMATED COMPLETION DATE (YYYYMMDD)			
6. PERFORMANCE DATA																			
ITEM	BCWS CUMULATIVE TO DATE (2)	BCWS FOR REPORT PERIOD (3)	BUDGETED COST FOR WORK SCHEDULED (BCWS) (Non-Cumulative)										UNDIS-TRIBUTED BUDGET (15)	TOTAL BUDGET (16)					
			SIX MONTH FORECAST						ENTER SPECIFIED PERIODS										
			+1	+2	+3	+4	+5	+6											
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)				
a. PERFORMANCE MEASUREMENT BASELINE (Beginning of Period)																			
b. BASELINE CHANGES AUTHORIZED DURING REPORT PERIOD																			
c. PERFORMANCE MEASUREMENT BASELINE (End of Period)																			
7. MANAGEMENT RESERVE																			
8. TOTAL																			

- Blocks 5c,d,e, and f (CPR header data) should consistent with Format 1 blocks 5b, 5c, 6c(2), and 8g respectively
- Bocks 5h-5l should be validated against the IMS and/or contract
  - Block 5j should be consistent with the baseline completion date in the IMS and cost systems
  - Block 5k should reflect the date of completion agreed upon in the contract
  - Block 5l represents the latest forecast completion according to the IMS
- Block 6, row "a" should tie to row "c" from the prior month's submittal. **Format 3 differs between the IPMR and CPR in block 6, row "b"** with regard to the level of detail. CPR block 6b time-phasing had been grayed-out; however, the IPMR requires time-phased change details for each of the most significant transactions and a single "other" line item for the remaining transactions. Navy CEVM recommends that "other" be used for no more than 30% of the total
- Block 6a,b,c. and 7 should all total to Block 8 in column 16









# Validating Format 5 (CPR or IPMR)

- Format 5 has no specific format requirement; however, the content and order are prescribed
- **The CPR and IPMR reports now differ in content, and the IPMR also has a specific reporting order.** See below.
- The largest material differences between the two version of format 5 are:
  - IMS discussion is integrated into the IPMR and should cover critical/driving paths, Baseline Schedule Variance, Schedule Margin, Changes to Task Activity Codes or the Data Dictionary, and Schedule Health Analysis
  - While the CPR required contractors to address all variances in breach of threshold, the IPMR institutes a limit of 15 WBSs with reportable variances (may be less than 15 only if less than 15 accounts breached threshold).
    - The top three variances by type should be addressed (current cost, current schedule, cum cost, cum schedule, VAC)

## **CPR Format 5 Reporting Content**

- 1) Contractually required cost, schedule, and EAC variance analyses
- 2) MR changes and usage
- 3) UB contents
- 4) Differences between the best case, worst case, and most likely management EAC, if any
- 5) The difference between the most likely management EAC and the estimate in Block 8.e of Column (15), if any
- 6) Significant differences between beginning of period PMB time phasing and end of period PMB time phasing in Format 3
- 7) Performance measurement milestones that are inconsistent with contractual milestones (Over Target Schedule)
- 8) Formal reprogramming (over target baseline) implementation details
- 9) Significant staffing estimate changes in Format 4

## **IPMR Format 5 Reporting Content & Order**

- 1) Contract Summary
- 2) Formal Reprogramming Analysis
- 3) EAC Analysis
- 4) UB Analysis
- 4) MR Analysis
- 5) IMS Discussion
- 6) Format 3 Discussion
- 7) Format 4 Discussion
- 8) Cost and Schedule Variance Analysis
- 10) Supplemental Discussions





# Validating Format 6 (IMS or IPMR)

Since Format 6 is a working schedule and is quite different from the other report-like formats, the nature of Format 6 validation is also quite different. Format 6 validation should focus on validating the general quality and readiness of the schedule to ensure it's ready for an evaluation of performance and schedule logic

- Ensure the IMS status date is consistent with the end date of the current reporting period and is therefore aligned with the EV data.
- Ensure project start and completion dates are correct and consistent with the contract
- Validate that critical path calculations were performed in the scheduling software prior to submission
- Depending on the software, ensure that time analysis has been run, or that the schedule is in a “calculated” state, so that forecast dates are accurate as of time-now
- Perform a cursory examination of the network schedule
- Compare tasks and baseline to the previous months submittal
- Ensure all actual start and actual finish dates fall prior to the status date
- Ensure all tasks without an actual start have an early start beyond the status date
- Ensure all tasks without an actual finish have an early finish beyond the status date
- Check for logic on summary tasks
- Perform a periodic schedule health assessment (various versions exist)





# Validating Format 7 (IPMR only)

Format 7 requires the electronic submittal (xml format) of time-phased data at the WBS level for baseline, performance, actual cost, and forecast. Because this data covers the entire contract period of performance, it can be used to validate any of the performance data presented in Formats 1-3. Each month the program office should:

- Use Format 7 data to validate bottom line data
  - Format 1 performance data subtotals (Row 8e) and estimated columns (Column 15)
  - Format 2 performance data subtotals (Row 5e) and estimated columns (Column 15)
  - Format 3 (Row 6c) baseline data totals by period
- Spot check WBS level numbers to make sure that lower levels are also presented accurately





# Point of Contact

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